

Laws, Pesticide Safety & Personal Protective Equipment

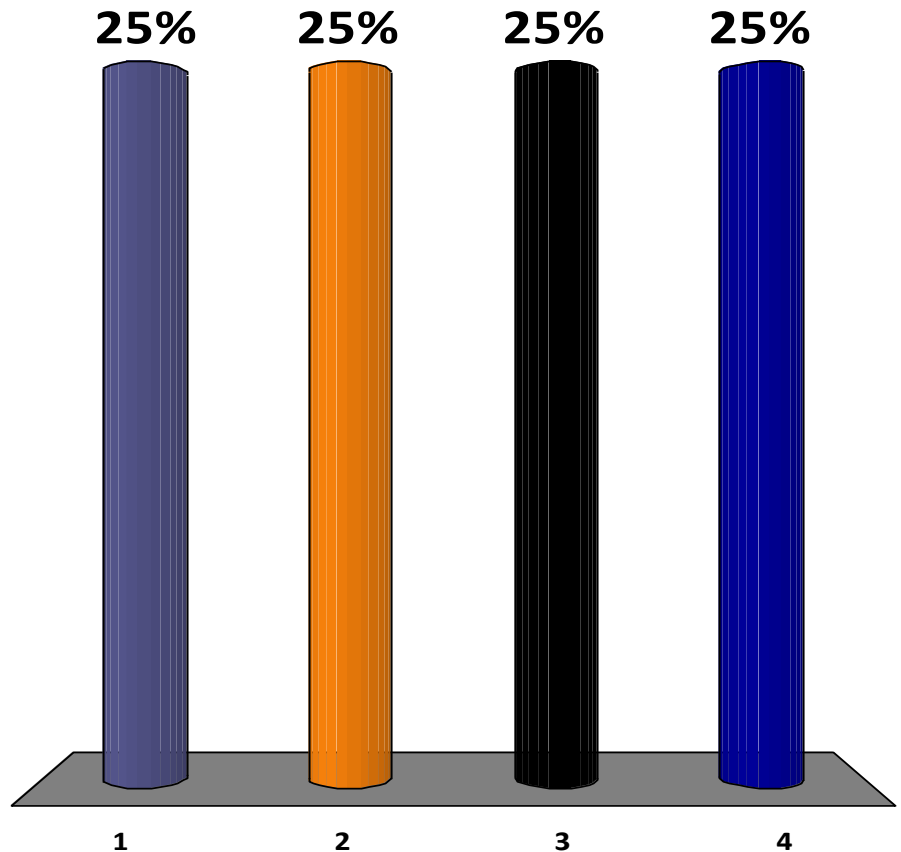
Limited Commercial Landscape Maintenance (LCLM)
Pesticide Applicator Certification Workshop

Frank Dowdle
Agriculture Safety Training Agent

UF / IFAS
Palm Beach County Cooperative Extension Service

Who is responsible for pesticide laws and rules in Florida?

1. Florida Department of Pesticides
2. Florida Pesticide Information Office
3. The Environmental Protection Agency
4. Florida Department of Agriculture and Consumer Services





Nicole "Nikki" Fried
Commissioner

Who's in charge?

- The Florida Department of Agriculture and Consumer Services (FDACS)
- The Division of Agricultural Environmental Services (AES)
- The University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS)
- Approved by the U.S. Environmental Protection Agency (EPA)

Why have a license?

- Federal law requires all individual who use restricted use pesticides to be certified or work under the direct supervision of a certified applicator
- State laws and regulations in Florida impose additional certification and license requirements for certain types of pesticide applications

Structural Pest Control and Commercial Lawn & Ornamental Pest Control

- Buildings, structures or lawns & plant beds associated with a building
 - All persons who apply ANY pesticide (either restricted use or general use) inside or to any part of a building or structure, or to ornamentals or turf associated with a building, including lawns and plant beds, must have a pesticide applicator certification

Limited Lawn & Ornamental Certification

- Individuals who apply pesticides as a government employee, or as a private property owner, or an employee making applications to private property owned by the employer

Limited Commercial Landscape Maintenance Certification

- For landscape maintenance personnel applying herbicides for controlling weeds in plant beds and to perform integrated pest management on ornamental plants using the following materials:
 - Herbicides, Insecticides and fungicides having the signal word “caution” on the label
 - You are not allowed to supervise others; everyone applying pesticides must be licensed

Chapter 482 - Structural Pest Control Act

- Pest Control
 - 482.156
 - Limited certification for commercial landscape maintenance personnel
 - <http://www.flaes.org/>

Chapter 482.161

- 482.161 Disciplinary grounds and actions; reinstatement.—(1) The department may issue a written warning to or impose a fine against, or deny the application for licensure or licensure renewal of, a licensee, certified operator, limited certificate holder... upon any of the following grounds:

- (a) Violation of any provision of this chapter or of any rule of the department adopted pursuant to this chapter.
- (b) Conviction in any court within this state of a violation of any provision of this chapter.
- (c) Habitual intemperance or addiction to narcotics.
- (d) Conviction in any court in any state or in any federal court of a felony, unless civil rights have been restored.

- (e) Knowingly making false or fraudulent claims with respect to pest control; knowingly misrepresenting the effects of materials or methods used in pest control; or knowingly failing to use materials or methods suitable for the pest control undertaken.
- (f) Performing pest control in a negligent manner.
- (g) Failure to give to the department, or authorized representative thereof, true information upon request regarding methods and materials used, work performed, or other information essential to the administration of this chapter.

- (h) Fraudulent or misleading advertising relative to pest control or advertising in an unauthorized category of pest control.
- (i) Failure to pay an administrative fine imposed pursuant to subsection (7).
- (j) Impersonation of a department employee.
- (2) A revocation or suspension of a license, certificate, or limited certificate is effective for all categories unless the department, in its sole discretion, suspends or revokes fewer than all categories thereof.
- (3) Three years after a revocation, application may be made to the department for reinstatement; and the department may authorize reinstatement.

LCLM

- \$150 to take exam
- \$75 to renew with CEUs
- CEUs needed to renew
 - 2 Core and 2 category



Here only

Images from EDIS publications

Never here



Signal Words

None

“Caution”

Okay to use

NO, Do not use

“Warning”

“Danger”

“Danger with Skull and Crossbones”

Yes, you can use these



Images from Gemplers.com



No , you can not use these



What you can not do

- 482.156 (4) Certification under this section does not authorize:
 - (a) Application of pesticides to turf;
 - (b) Operation of a pest control business; or
 - (c) The application of pesticides by unlicensed or uncertified personnel under the supervision of the certified person.

What you have to do

- 482.156 (5) A person certified under this section shall maintain records documenting the pests and areas treated, plus the methods and materials applied for control of such pests, which records must be available for review by the department upon request.
- 3 years retention required
- Suggested 5 year retention

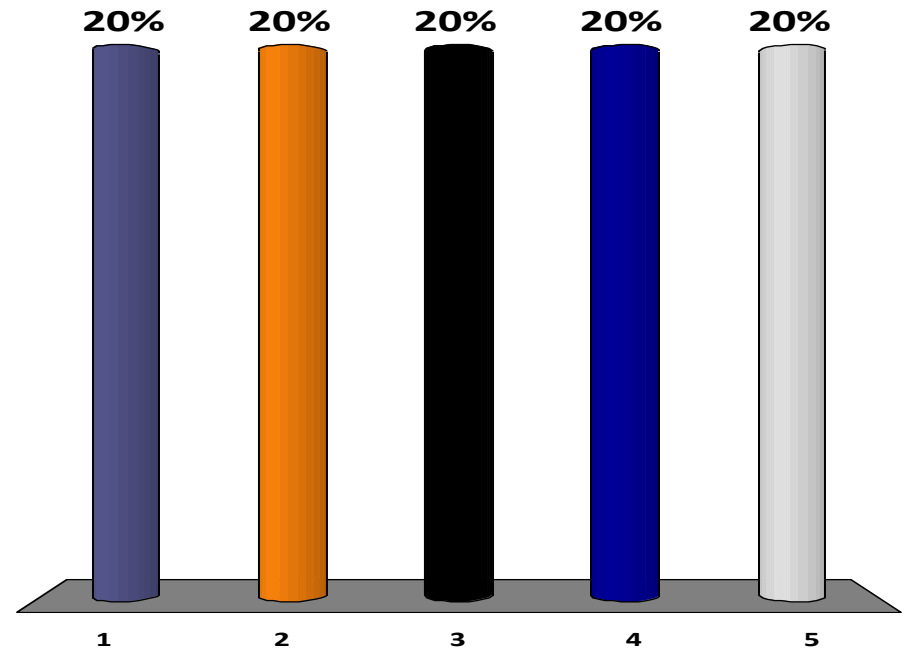
Pesticide Risk Equation

$$\text{Hazard} = \text{Toxicity} \times \text{Exposure}$$

- This means the danger is related to not only the toxicity, but also how long you are exposed to it
- Even if a chemical is not labeled with a strong warning disclosure and you are exposed to it for years, the “chronic” hazard to your health may be significant

How must you notify persons who require prior notification?

1. By telephone
2. Mail letter
3. In person
4. Hand deliver
5. Any of these



What about other people?

- 482.2267
- Registry of persons requiring prior notification of the application of pesticides.

Alachua (County then names and address)

Telephone

Pesticide or Class

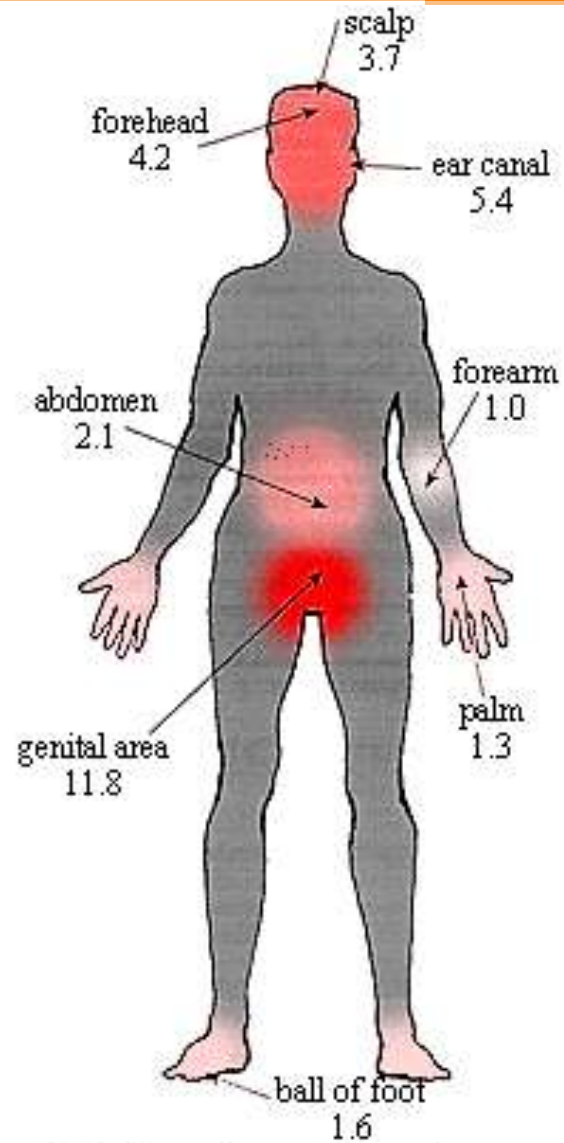
Distance/Designation

Date Registered

- 24 hours before
- Telephone, mail, in person, **or** hand delivery

Types of Exposure

- Oral – swallowing a pesticide
- Ocular – pesticide spraying into eyes
- Inhalation – breathing in a pesticide (common in greenhouses)
- Dermal – pesticides on your skin
 - Skin is the body part mostly likely to receive exposure Were?
 - Amount absorbed depends on:
 - Diluent used (i.e. oil soaks into the skin better than water)
 - Area of the body (genital area is the most absorbent)
 - Skin Condition – hot, sweaty, cuts



Relative absorption rates, as compared to the forearm (1.0)

Source unknown

Types of Harmful Effects

- Acute – illnesses/injuries usually appear within 24 hours
- Delayed – illnesses/injuries that do not appear within 24 hours
- Allergic – May affect some people while not affecting others

First Aid for Pesticide Exposure

1. Stop the source of exposure quickly
2. For pesticides in the eye: wash eye quickly, but gently for at least 15-20 minutes; after 5 minutes remove contact lenses and continue
3. If inhaled, get victim to fresh air or provide artificial respiration if needed
4. If swallowed or in mouth, only induce vomiting or provide water/milk if label says to do so AND only if victim is conscious
5. If on skin, remove contaminated clothing and wash with soap and water, put on clean clothes

Avoiding Heat Stress

- Drink plenty of water before, during, and after work
- As recommended, consume 16 oz. of water per work hour
- The more you drink, the more bathroom breaks!
- Use fans and provide shade
- Choose PPE designed to be as cool as possible
- Take rest breaks and schedule tasks properly

HEAT STROKE

1. Dry, hot skin
2. Very high body temperature

HEAT EXHAUSTION

1. Moist clammy skin
2. Normal or subnormal temperature



Applying Pesticides Safely

- Wear PPE
 - Spraying a thick coat of starch on the bottom of your pants may offer some added protection and make the pants easier to clean
- Deliver pesticide to target site
- Check delivery rate and appearance of spray
- Avoid non-target organisms and surfaces
- Operate equipment according to instructions

Transporting Pesticides

- Never carry pesticides in the passenger section of your vehicle
- Never allow children or pets to ride with pesticides
- Never transport pesticides with food, clothing or other things meant to be eaten or in contact with people or animals
- Never leave your vehicle unattended
- Labels and SDS for products being used

Transport

- Labels and SDS for products being used

Measure correctly

- Use the correct amount
- Be careful pouring
- Try to pour at a comfortable height, near waist high

Storage Area

- Prevent contamination
- Keep the labels legible
- Keep the containers closed
- Use the original containers
- Have clean water on hand for decontamination
- Good lighting
- Moderate temperature

Maintain the Storage Area

- If container is damaged, use pesticide immediately at labeled site & rate
- Store volatiles separately
- Isolate waste products for disposal
- Inventory & dated (shelf life)
 - Operation Cleansweep (877) 851-5285
 - Cancelled, suspended and unusable pesticides

Storage

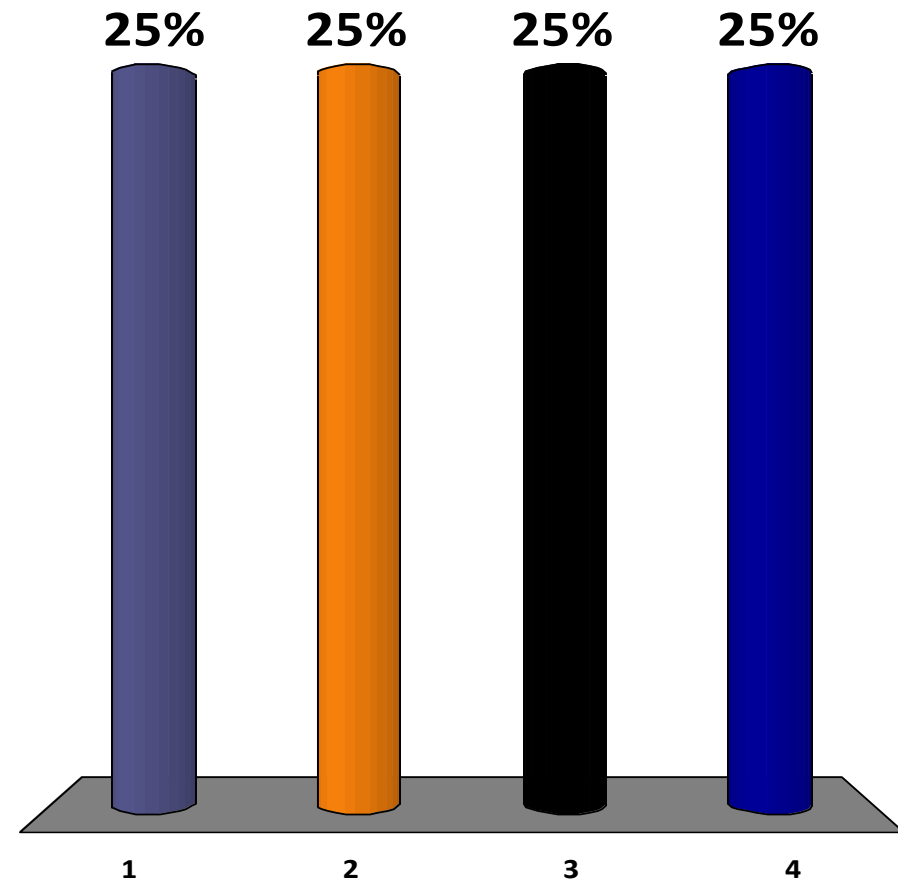
- Have a spill kit inside
- Have PPE outside
- Minimize the amount of pesticides that you store
 - Purchase only what you know you will use in a certain period of time
 - Maintain the storage area
 - If container is damaged, use pesticide immediately or as soon as possible at a labeled site & rate



Personal Protective Equipment

When is it okay to wear less PPE than the label calls for?

1. Always
2. When mixed with water
3. When mixed at $< 10\%$
4. Never



Don't forget

- Your Hazard = Pesticide Toxicity X Your Exposure
- How do you reduce your exposure?

Personal Protective Equipment

- NOTE: Shorts and T-shirts do not qualify as PPE, neither does ordinary clothing
- Minimal PPE is usually long pants, long-sleeved shirt and socks with shoes
- PPE for the same pesticide may vary depending on application site
- You are legally required to follow all personal protective equipment instructions that appear on the label! - It is the minimum required

Protecting Your Skin

- Long-sleeved shirts and long pants should be made out of sturdy material
- Fasten shirt collar completely to protect the lower neck
- Pants and shirts should be worn underneath coveralls
- Coveralls should fit loosely to provide an air layer between you and pesticide

Protecting Your Skin

- Most exposure occurs on the hands and forearms
- Chemical resistant apron can protect you and your clothing
- Plastic “safari” hats for head and neck protection are a good choice

Why protect your skin?

- It is your largest organ
- Dermal exposure is the most likely exposure you will have
- Your hands and forearms are the most likely part of your skin to be exposed

Protecting Yourself

- PPE is designed to keep pesticides off of you
- You must wear the PPE
- If you can keep the pesticides off of you and your PPE you can not be harmed by it

Protect your respiratory tract

- If needed the label will list the respirator that you need to wear
- NIOSH/MSHA approval number

Spills and Accidents

Protect yourself first

- Follow the Cs
- Act fast and cautiously
- Make sure all involved have the correct PPE
- Do not leave a spill unattended
- Report it

Protect others and the environment

- These three steps are frequently referred to as the “Three C's of spill control.”
 - 1. **CONTROL** the spill.
 - 2. **CONTAIN** the spill.
 - 3. **CLEAN IT UP.**

Residues or waste

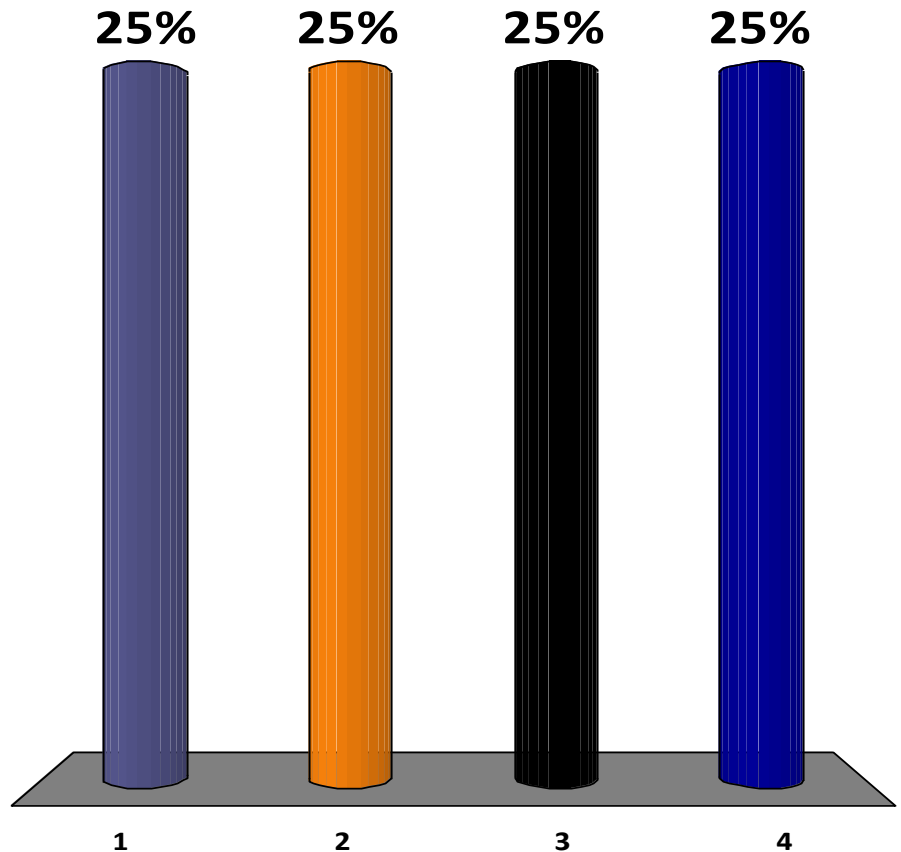
- Follow label directions
- Use on listed site if at all possible
- Dispose of any material that can not be used properly

Empty containers

- If paper make sure all product is removed
- If plastic triple rinse them and puncture
- Offer plastic containers for recycling
some vendors may assist you in this

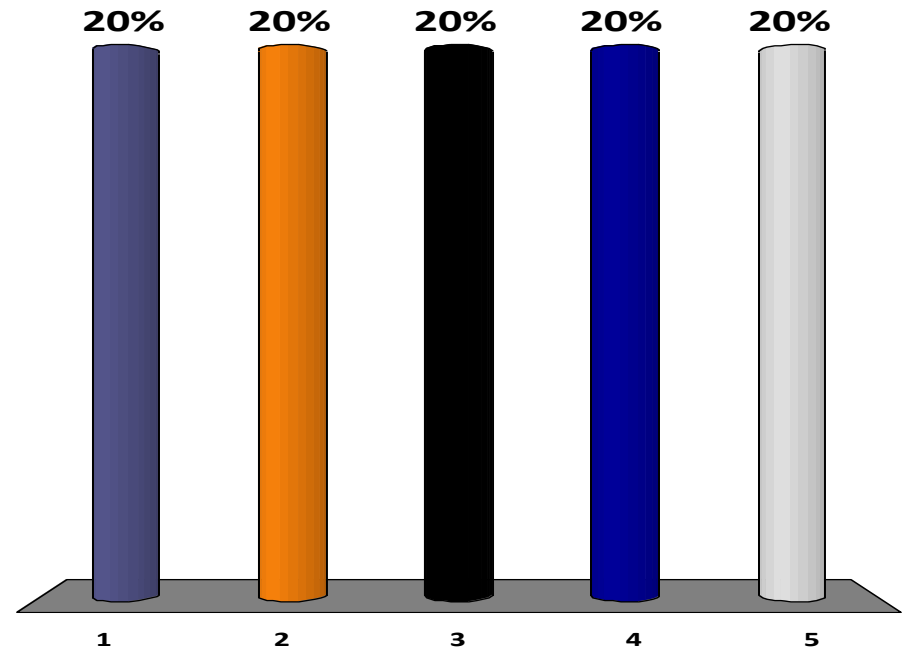
Who is responsible for pesticide laws and rules in Florida?

1. Florida Department of Pesticides
2. Florida Pesticide Information Office
3. The Environmental Protection Agency
4. Florida Department of Agriculture and Consumer Services



How must you notify persons who require prior notification?

1. By telephone
2. Mail letter
3. In person
4. Hand deliver
5. Any of these



When is it okay to wear less PPE than the label calls for?

1. Always
2. When mixed with water
3. When mixed at $< 10\%$
4. Never

